Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	WT Docket No. 06-150
	)	
Service Rules for the 698-746, 747-762 and 777-792 MHz Bands	)	PS Docket No. 06-229
	)	
Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band	)	

COMMENTS OF TELEVATE, LLC

Televate, LLC is extremely pleased to submit our comments regarding this important and monumental rule making proceeding to develop a viable regulatory mechanism to deliver a nationwide interoperable wireless broadband network to Public Safety. We applaud the Commission, Public Safety, the interested community of operators, vendors, consultants, and all interested parties supporting this endeavor. Televate draws on its extensive and direct experience in designing, implementing and operating broadband wireless networks in the 700 MHz band for public safety uses in the District of Columbia and the National Capital Region, and in our professional passion for and belief that wireless broadband will provide public safety important next generation communications capabilities, in crafting our comments and ideas to advance the next auction phase to a successful conclusion.

We are perhaps the only entity in the nation with design, build, operate, and maintain experience for commercial cellular networks, land mobile radio systems, and public safety broadband networks. Our exposure to the financial realities of operating commercial networks and the life and death realities of operating mission critical public safety networks leaves us

uniquely suited to understand the perspectives of both the public safety and commercial entities. We have a comprehensive understanding of how the commercial technologies can be applied to solve public safety's challenges and where it falls short. It is with this understanding, that we initiated the quest for 700 MHz, commercial-based, broadband for public safety back in 2002.

Televate is a professional public safety communications and IT consulting firm headquartered in McLean, Virginia. We have had the distinct pleasure of working with the District of Columbia and with jurisdictions in the National Capital Region (NCR), which constitutes the greater Washington, DC metropolitan area, with piloting and operating the nations first and only 700 MHz broadband wireless network(s) over the past six years[1]. The direct technical, administrative, program management, governance, end user experience, applications testing and evaluation, network design and operations, interaction with various federal and national agencies and public safety communications leadership bodies on all aspects of the design, implementation and operations of 700 MHz broadband networks for public safety has provided us insight relevant to this proceeding. We draw on these experiences in providing our comments that we trust will aid the Commission and all interested parties is the development of a viable approach to securing the national broadband network for public safety.

[1] Televate engineers and program managers were contracted by the District of Columbia to design and implement the nation's first public safety broadband network in the 700 MHz band. This pilot network, the Wireless Accelerated Responder Network (WARN) was operational in the District from January 2004 until recently when it was replaced by the Regional Wireless Broadband Network (RWBN). Televate provided engineering and project management support to the National Capital Region for the RWBN as well.

1) Introduction

Unfortunately, the reserve price was not met in the D-block auction. Many theories exist regarding why an entity did not bid the reserve price, however, there is no clear insight into what conditions would motivate companies to pursue the proposed partnership with public safety. Much focus has been placed on public safety's stated requirements to determine their impact on the failed initial auction. Public safety has spent considerable time and effort to detail its requirements and they represent a suitable starting point from which to negotiate a final agreement with the winning Block D bidder. We should do everything in our power to motivate wireless service providers to create a partnership with public safety that will deliver the optimal solution – one that ensures the baseline needs of public safety are met and provides the greatest likelihood that the ideal requirements of public safety can be satisfied.

The current auction based mechanism of awarding the Block D license to the highest bidder for radio spectrum failed to deliver on the objective of a national, interoperable, broadband public safety network. The re-auction of the spectrum, under a similar auction structure, will hopefully result in a bid that exceeds the reserve price simply due to greater certainty of penalties and expectations of the bidders. However, it is extremely likely other bidders could deliver more coverage, reliability, enhanced services, at a lower service price. Additionally, the winning bidder may not as qualified, technically or financially, to build, operate, and maintain a national network – increasing the risk to public safety and the public. Finally, the highest bidder may not be competitive with the existing wireless service providers, and not present a sustainable business model. Existing service providers bring more than six times the spectrum of the D block to the table, making them far more competitive and providing far more capacity for emergency operations.

We believe, and comments from comments seem to concur, that it is more important to get the right national, public safety network than to maximize auction revenues. In fact, the auction proceeds are among the least important factor to benefit the public in the 700 MHz auction. We believe that the only reason to require a minimum bid is to fund the various start-up operational obligations of the PSST and provide the PSST some additional seed funding to support special public safety broadband wireless adoption initiatives.

It is unlikely that our country will encounter an opportunity like this again. As such, it is critical that we leverage this opportunity fully and make a substantial investment for our country's future. The objectives of this opportunity must include:

1. Provide seed funding for the PSST that enables it to meet its responsibilities for the national network, 700 MHz rebanding, and to establish a solid foundation for national interoperability.
2. Construction or augmentation of a national broadband network to provide public safety with priority service with quality of service attributes.
3. A partnership with a sustainable business model and a demonstrated ability to deliver on that business model.
4. Construction of a high availability, high reliably, mission critical public safety grade network for as many sites or as many 9's reliability (e.g., 99.999%) as possible
5. Service pricing that is as affordable as possible to the greatest number of police, fire, EMS, transportation and other public safety agencies across the nation.
6. The greatest degree of national coverage possible.

7. Establishment of the baseline pricing for the national operator to a) augment network coverage (beyond the baseline national coverage), and b) augment reliability/availability (e.g., purchase of generators, redundant backhaul on a per site basis)

We believe that the most appropriate mechanism to satisfy these requirements is an auction combined with a Request For Proposals (RFP) whereby:

1. A minimum reserve price is set at $150 million, sufficient to fund 700 MHz rebanding, seed PSST baseline operations, and fund land mobile radio to broadband interoperability projects for the major metropolitan areas.
2. Any D block bidder must submit a proposal to the PSST according to the PSST's RFP.
3. The PSST, with appropriate FCC oversight, evaluates all proposals from bidders, who's bid met the minimum bid, against published evaluation criteria that balance the importance of the above objectives.
4. We recommend that only five percent of the total evaluation score is based on the auction bid. The remaining 95 percent of the proposal score. We have provided a framework for the RFP and proposals below.
5. The PSST would then negotiate the final details of the Network Sharing Agreement (NSA) with the bidder with the highest overall score within a 60 day period. If, for whatever reasons, the parties could not reach final agreement, the PSST could initiate negotiating the NSA with the bidder with the next highest overall score based on their proposal attributes.

6. There would be no penalties for bidders that were not selected or could not reach a NSA agreement with the PSST.

We propose that the PSST be given broad authority to author the RFP and to establish the requirements. We encourage the FCC to allow public safety the fundamental latitude to satisfy their wireless broadband operational needs. We have proposed an outline for the RFP herein that considers the critical requirements and evaluation criteria, however, the PSST and its advisor may have additional critical requirements or elect an alternative list of objectives. The RFP process, if implemented properly, can also accelerate a NSA because many of the complicated terms will be pre-negotiated from the vendor's proposal. Instead, the parties can focus on any nuanced aspects of the proposals, and the proposals will serve as an excellent starting point for negotiations. In fact, the PSST can evaluate proposals based on the clarity of any commitment and the degree to which any one proposal approaches the text of an agreeable Network Sharing Agreement[2].

2) <u>Current Issues Facing Public Safety</u>

There are various dilemmas the country faces for public safety communications. Given this vast opportunity, we must solve as many of the issues as we can in this licensing/contracting process. First, many public safety agencies do not have the direct funding to deploy interoperable P25 nor broadband wireless networks. Second, even when they do implement interoperable, standard based technologies, they may not be able to do so simultaneously, causing operational challenges that may hinder interoperability. Third, governments cannot afford the service fees for

[2] Alternatively, if the PSST is prepared to provide a proposed NSA, the bidders can provide comment, clarification, and exceptions to the proposed NSA.

cellular or broadband services for the vast majority of its personnel and vehicles at current rates. Fourth, data interoperability will continue to be a challenge as governments continue to implement networks and applications that often do not provide interoperability. Fifth, cellular networks do not deliver the same level of robustness provided by the typical public safety land mobile radio network. Sixth, public safety radios have additional capabilities not available in cellular handsets such as unit-to-unit communications and military grade reliability. And seventh, there have been, and will continue to be, significant investments in legacy land mobile radio networks throughout the country. Without a broadband wireless interface to these networks, there will be no national interoperability for the primary communication means for public safety – voice.

In general, we propose to address and resolve most of these public safety issues through the RFP mechanism described previously because this process provides an front loaded negotiated contracting opportunity for the PSST to form the national partnership with the most qualified bidder supporting public safety's requirements. However, we believe that there are several key components that must be combined with the RFP/auction process to ultimately ensure success:

1. The FCC must empower and fund the PSST to develop, implement, and operate interoperable applications. Solving network interoperability is only one part of the equation. For example, in order to share video, cooperative agencies must use compatible codecs, with compatible signaling, and have conduits to one another's systems. The PSST is the logical location for such development. It can design and develop such applications with the help of industry and can provide these applications as a service to the public safety community.

2. We must work to make the proposed process one that easily enables public safety to purchase broadband wireless centric goods and services from the PSST or national service provider. Building a network and providing a service is just the first step towards public safety's use of the network. Governments and other entities must then purchase service from the PSST. Ultimately, we should strive to create mechanisms to leverage this first competition to avoid thousands of competitions nationwide[3].
3. The disparate needs of public safety nationally may require that additional goods and services be available from the PSST and the D Block licensee to ensure success. One example of this concept is on the purchase of enhanced network reliability in a particular market. Some agencies have greater dependence on data then others. It may be unfair for the national broadband provider to build an extremely robust solution where public safety's land mobile radio systems are also not robust or where public safety does not require a robust solution. Requiring a highly available network nationwide would then only serve to drive up the cost of the network unnecessarily. At the same time, this opportunity must establish pricing for agencies to "purchase" reliability that suits their requirements and does not hinder adoption of the service. Establishing a price in a competitive framework such as this may enable state and local governments to purchase goods and services more easily from the national service provider.

---

[3] For example, perhaps a mechanism exists to place the goods and services offered in the winning bidder's proposal on the GSA schedule.

3) Details of the RFP

An RFP of this magnitude must be comprehensive to ensure that public safety requirements are clearly articulated and to guide a proper evaluation and license award. The PSST may elect to adopt some, most, or all of the NPSTC Statement of Requirements as its baseline requirements, combined with business and service requirements outlined in its Bidders Information Document. We do not propose an exhaustive list of requirements, goals, or objectives herein. Instead, we provide a high level document for the consideration of the FCC, public safety, and the bidder community. The fundamental RFP components include the following:

a) Baseline Objectives and Evaluation Criteria

Bidders must provide proposals that cover the following categories and address the following baseline objectives:

1. The national network must serve, at a minimum, the population of the typical national wireless service provider. We understand that the national carriers serve approximately 95% of the population. We propose that the D block licensee serve at least 95% of the population. The service must provide broadband speeds[4]. Guarantees to serve more than the minimum population will improve the bidder's score. Multiple companies can form a partnership to deliver national coverage,

[4] The NPSTC SoR provides an excellent starting point on the speed requirements. We believe, and would like to see carrier comment on this, that the real drivers for speeds will be commercial customers. We anticipate that they will drive the need for significant in-building coverage at higher and higher speeds.

however, they must provide a single proposal and bid as a single entity to avoid interoperability issues.

2. The national network must be either 99.9% available or have 25% of all sites hardened, providing reliable on-street coverage from these hardened sites, no later than year two of the license. The bidder must propose incremental improvements in reliability/availability over the course of the license term. Guarantees to provide more than the baseline reliability will improve the bidder's score. Innovative solutions that include affordable satellite service backup (and devices) for all public safety users can also contribute to the level of reliability as well as emergency deployable systems.
3. The maximum service price for priority public safety services must be discounted from list rates by at least 20 percent[5]. We suggest that rates be discounted in order for public safety to benefit from reduced costs in delivering broadband services in the future. Guarantees of higher levels of discount off commercial list prices will improve the bidder's score.[6] We also propose additional improvements to the bidder's score for innovative methods to bring the maximum number of public safety personnel on to the network and provide pricing methodologies that provide incentives for adoption. Bidders might also provide pricing models that varied

[5] We note that the major carriers discount service by 18 percent for large corporate accounts. Given the size and facilitated procurement for the public safety services, offset by the premium service that public safety will receive with this solution, we see this as a reasonable starting point.

[6] There may need to be some provision here that the list prices can be no higher than the average of the other national wireless service providers.

based on net public safety purchasing volume, the types of services purchased (priority versus non-priority service for some users).

4. The Bidder must demonstrate that it has the financial, technical, and managerial capabilities to build, operate, and maintain the national network and compete in the wireless services marketplace. It must demonstrate that it can secure the financing to fund such a network. It must also demonstrate its ability to compete in the commercial wireless services marketplace such that public safety is reasonably assured of the likelihood that the winning bidder will succeed in building and operating the network.
5. The Bidder must provide priority access to public safety over the PSBL spectrum all of the time. Bidders must indicate their proposals for the events that trigger priority in the remainder of their spectrum[7]. Bidders must also indicate what groups of individuals they will provide priority services. As a baseline, the system must provide priority service to law enforcement, Fire, EMS, emergency management, and transportation personnel. The target should be that all Emergency Support Functions as well as individuals from Federal, state, local, tribal, and private entities involved in emergency services be included in the network (with various levels of priority). Proposals will be evaluated for the inclusive nature of those who will receive priority, the comprehensive nature of the

[7] Bidders should indicate their total spectrum holding and network capacity. We should not assume that they bring only the D block to the table.

instances in which priority will be granted, and in the simplicity of the solution that will trigger priority.

6. Bidders must provide details on any other service, function, or deliverable required by the PSST. For example, the PSST may require the delivery of core solution to deliver push-to-talk services for public safety. Requirements for this system, such as maximum delay no greater than the Project 25 specification, will be identified in the RFP and bidders will provide proposals on their solution to deliver the required system. The PSST may also require a higher level of telephone customer support than is standard in the wireless industry or may require a specified level of on-site customer support for major events. Bidders must provide baseline capabilities to allow public safety to activate and modify service levels to their subscribers and to have basic network operations and maintenance monitoring and alerting capabilities. The bidders will provide their respective plans to support these objectives.
7. Bidders must provide pricing, accessible to both the PSST and public safety entities, for purchasing additional[8] coverage and reliability. We envision that this proposal would be on a per site basis and would cover the deployment costs as well as any excess operation costs[9].

---

[8] Earlier, we indicated that the bidders would have to establish their baseline level of coverage and reliability. Here, the PSST or PSST customers can purchase additional coverage and reliability beyond that baseline level to suit their requirements.

[9] Presuming, of course, that the national service provider chose not to serve an area due to its lack of profitability, it may be necessary to fund some portion of the operations of the site.

8. Bidders should provide proposals that accommodate the use of public safety assets to minimize deployment costs. For example, where the bidder does not currently provide service, it can partner with state and local governments to access their existing sites (often with backup generators and redundant backhaul).
9. Bidders must recommend a mechanism for funding the ongoing operations of the PSST. We envision a baseline and target requirement, set by the PSST. The bidder's score will be a function of the likelihood of sufficient and sustainable funding during the term of the agreement. We prefer a model whereby the D Block winner provides billing services to the public safety community and collects a service fee, per line, to fund PSST baseline operations. The D Block bidder could private label the service (e.g., phones, customer service, and bills) as needed to ensure an appropriate image of the overall service. Any value added services provided by the PSST could also be accommodated in this model.

Bidders can take exception with certain requirements, place limitations and the provision of service, or provide other commercial limitations. For example, a bidder may offer service cost incentives for limiting the use of spectrum outside the PSBL spectrum[10]. These exceptions, will reduce the bidder's score if the PSST finds the exception problematic.

[10] In our experience, the key bandwidth driver is video. If public safety personnel use video judiciously, we believe that public safety will be able to remain in the 10 MHz of spectrum in the vast majority of circumstances. Therefore, bidders can propose applications and mechanisms that help public safety minimize video use.

4) Conclusion

The amount of money the Federal government receives for the D Block license is insignificant compared with the monumental importance of building and maintaining an affordable, national, interoperable, reliable, broadband network. We believe that the competitive proposal analysis of all proposals above the minimum reserve auction price of $150,000,000 is an optimal mechanism to highlight the importance of success: sufficiently funding the PSST to meet the needs of the public safety community, and by developing a solution that can nationally meet the financial and functional needs of public safety. The ultimate success of this solution would be one that enables all public safety personnel to use this network, interoperate seamlessly, and to fully leverage information and communications to dramatically impact the ability of public safety personnel to save lives. Removing the focus on the highest bidder will result in a more viable public/private partnership.

We believe that baseline requirements must be established to ensure that the network be deployed, maintained, and operated throughout the term of the license and that the system must meet some minimum level of requirements. We further believe that if the service providers compete on important network operational attributes, public safety is more likely to achieve its target requirements, not just the baseline requirements. This process will also eliminate the uncertainty that prospective bidders objected to in the initial D Block auction. The proposal will be at the sole discretion of the bidder, the base requirements are set, the bidder understands how its proposal will be evaluated – the only uncertainty is in the competitions' proposal.

We believe that our proposal properly encourages bidders to focus on the core success factor of this public safety network rather than the cash auction bid amount; that the service be available to all public safety personnel, not the elite and prosperous few; that it meet the stringent

needs of public safety during times of emergency, not just day-to-day events; and that it promotes national interoperability at all layers, and among all emergency services personnel, not simply enabling individuals to exchange data, but to effectively communicate.

We appreciate the opportunity to present these thoughts to the Commission. We strongly believe in the benefit of broadband networks and applications for public safety. They must have affordable access to this network now. Televate has worked diligently for the past six years to deliver broadband wireless to public safety and we are honored to support this important endeavor. We are confident that broadband will dramatically improve the way public safety personnel perform their missions and that our country will greatly benefit from the national broadband network. We are committed to supporting the first responders who risk their lives for us and we offer our full resources to supporting the success of this initiative. We commend the Commission for its resolve during this process and we look forward to continued participation in the process.

Respectfully submitted,

Joseph J. Ross, Partner
Televate, LLC
8300 Greensboro Drive, Suite 800
McLean, Virginia 22102
www.televate.com

June 20, 2008